



Procedure: C-A-OSHP-ACC  
Revision: 00  
Revision Date: 05/19/03

## COLLIDER-ACCELERATOR DEPARTMENT

Title: OSH Management Plan for Accelerators

Prepared by: E. Lessard

Group: ESH&Q

### Approvals

\_\_\_\_\_  
*Signature on File* Date: \_\_\_\_\_

ESH&Q Division Head

\_\_\_\_\_  
*Signature on File* Date: \_\_\_\_\_

Collider-Accelerator Department Chairman

(Indicate additional signatures)

Y N

☐ x FS Representative: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Radiological Control Coordinator: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Chief ME: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Chief EE: \_\_\_\_\_ Date: \_\_\_\_\_

x ☐ ESH Coordinator: *Signature on File* Date: \_\_\_\_\_

☐ x QA Manager: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Other: \_\_\_\_\_ Date: \_\_\_\_\_

<p><b>OSH MANAGEMENT PLAN</b></p> <p><u>Accelerators</u></p>	<p><b>Completed by:</b> <u>E. Lessard</u></p> <p><b>Date:</b> <u>May 19, 2003</u></p>
<p><b>1. Hazards:</b></p> <ul style="list-style-type: none"> <li>• Ionizing Radiation</li> <li>• Non-Ionizing Radiation</li> <li>• Hazardous or Toxic Materials</li> <li>• Radioactive Materials</li> <li>• Electrical Energy</li> <li>• Explosive Gases and Liquids</li> <li>• Oxygen Deficiency</li> <li>• Kinetic Energy</li> <li>• Potential Energy</li> <li>• Thermal Energy</li> <li>• Cryogenic Temperatures</li> </ul>	
<p><b>2. Department-supported Objective(s):</b></p> <ul style="list-style-type: none"> <li>• An injury free workplace</li> <li>• Compliance with OSH requirements in SBMS</li> <li>• Workers are consulted and encouraged to participate actively in all elements of the OSH management system</li> <li>• Improved performance of the OSH management system</li> <li>• OSH management system is integrated with the EMS management system</li> </ul>	
<p><b>3. Department-supported Target(s):</b></p> <ul style="list-style-type: none"> <li>• Reduced year over year injury/illness rates</li> <li>• Implemented all corrective actions in the report of the ad hoc Electrical Safety Review Committee, see ATS 1425</li> <li>• Establishment and efficient functioning of an OSH committee with worker representation</li> <li>• A fully implemented ILO-OSH-2001/OSHAS 18001 type OSH management system</li> <li>• A joint OSH, EMS and Self-Assessment Management Review</li> </ul>	
<p><b>4. Department-wide OSH Performance Indicator(s):</b></p> <ul style="list-style-type: none"> <li>• Tier I inspection results</li> <li>• Injury/ Illness Rates</li> <li>• The number of Occurrence Reports and Critiques dealing OSH</li> <li>• Completion of tasks listed in Section 10</li> </ul>	
<p><b>5. Department-wide Plan Description:</b></p> <p>The OSH Management Plan for Accelerators is assured through a documented program of safety reviews and work planning. OSH subject matter experts from the BNL Safety and Health Services Division (SHSD) serve on the C-AD Accelerator Systems Safety Review Committee (ASSRC), which is the focal point for documenting safety issues for new or modified accelerators. It is the responsibility of the subject</p>	

matter experts from SHSD to help review activities brought before the committee for implementation of OSH controls.

Day to day OSH issues and action items are incorporated, as appropriate, through the work planning process documented in [C-A-OPM 2.28](#) and [C-A-OPM 2.29](#).

The Departmental Self-Assessment (SA) program, Worker Occupational Safety and Health Committee, OSH/EMS/SA Management review, Tier I inspections, and the annual OSH compliance review are also designed to help the meet the FY03 objectives in this Plan. Tracking and trending illness/injury rates as well as on time regulatory reporting contribute towards achieving OSH objectives and targets.

#### **6. Potential Impact(s):**

- Unsafe acts could injure personnel
- Undocumented or unreported OSH events could violate DOE requirements
- Improper compliance with SBMS requirements could create hazardous work environments, which could injure workers

#### **7. Legal and Other Requirements:**

ESH Standards:

[1.2.0 Departmental Environment, Safety & Health Inspection](#)

[1.2.1. Corrective Action Management and Tracking for Internal and External Assessments](#)

[1.3.1 Construction Safety](#)

[1.4.0 Compressed Gas Cylinder Safety](#)

[1.4.1 Pressurized Systems for Experimental Use](#)

[1.4.2 Glass and Plastic Window Design for Pressure Vessels](#)

[1.5.0 Electrical Safety](#)

[1.5.1 Lockout/Tagout Requirements](#)

[1.5.2 Design Criteria for Electrical Equipment](#)

[1.5.3 Interlock Safety for Protection of Personnel](#)

[1.6.0 Material Handling: Equipment and Procedures](#)

[1.6.1 Material Handling: Operator Training and Qualifications](#)

[1.9.0 Traffic Safety](#)

[1.14.0 Identification of Piping Systems](#)

[1.16.0 Personal Protective Equipment](#)

[1.18.0 Excavation Safety](#)

[2.1.3 Pesticides](#)

[2.2.1 Laboratory Workplace Standard for Non-Radioactive Toxic Substances](#)

[2.2.4 Confined Spaces](#)

[2.3.2 RF and Microwaves](#)

[2.4.0 Noise](#)

[2.5.0 Heat Stress](#)

[2.6.0 Sanitation](#)

[2.8.0 Bloodborne Pathogens](#)

[5.10 Nonflammable Cryogenic Liquids](#)

SBMS Subject Areas:

[Beryllium](#)

[Biosafety in Research](#)  
[Chemicals, Working with](#)  
[Investigation of Incidents, Accidents and Injuries](#)  
[Laser Safety](#)  
[Lead](#)  
[Lifting Safety](#)  
[Oxygen Deficiency Hazards \(ODH\), System Classification and Controls](#)  
[Respiratory Protection](#)  
[Static Magnetic Fields](#)

**8. Operational Controls:** See [OSH Operational Controls Form](#)

**9. Budget:** Operating Budget

**10. Structure, Authorities, Responsibilities**

Tasks	Person Responsible	Completion Dates
Update one-line drawings that show the electrical distribution system. See ATS 1425.1.7.	T. Nehring	12/31/03
Write a C-AD Grounding Plan for accelerators and beam lines. See ATS 1425.1.13.	T. Nehring	07/30/03
Implement a web based LOTO data entry and tag system. See ATS 1425.1.8.	J. Sandberg	06/30/03
Implement a formal OSH Management system for accelerators, experimental areas, offices and shops at C-AD that is similar to ILO-OSH-2001 and OSHAS 18001	E. Lessard	10/01/03
Complete the <a href="#">OSH Team task list</a>	OSH Team	10/01/03
Establish a functioning WOSH Committee	E. Lessard	05/30/03